

Module Quality, Perceived Values, and Relevance: Implications on Grade 12 Learners Cookery Performance

Mary Kristine G. Sumayang, Raquel A. Saab

Master of Arts in Home Economics, Louders College, Inc.

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.905000309>

Received: 08 May 2025; Accepted: 13 May 2025; Published: 13 June 2025

ABSTRACT

As the education sector adapts to post-pandemic challenges, modular learning has become a vital tool in delivering practical subjects like cookery. This study focuses on how cookery modules shape students' learning by evaluating their quality, perceived value, and relevance in developing both theoretical knowledge and hands-on skills. Using a descriptive-correlational research design, data were collected from 70 cookery students in a public high school in Misamis Oriental through a validated questionnaire with open-ended questions supplemented by an analysis of their cooking performance ratings. Descriptive statistics were used to measure module quality, perceived values, and cookery performance, while Spearman's Rho was applied to determine significant relationships among variables. Results showed that students rated module quality as "Moderate" and perceived its value and relevance as "High." However, their cookery performance was only "Satisfactory," and no significant correlation was found between their evaluation of the modules and their actual performance. Students' responses from the open-ended questions pointed to challenges like lack of hands-on practice, comprehension difficulties, and limited resources. The study concludes that while students value the modules, their performance is shaped more by external and internal learning conditions. It recommends integrating more practical activities, strengthening instructional support, and improving resource access to enhance students' skill development in cookery.

Keywords: cookery performance, modular learning, perceived value, module quality

INTRODUCTION

As the Philippines continues to adapt to the post-pandemic education landscape, the challenges posed by COVID-19 have highlighted both gaps and opportunities for growth within the educational system. While the pandemic revealed various obstacles, it also accelerated the adoption of innovative teaching methods, including modular learning. In particular, cookery modules within the Technology and Livelihood Education (TLE) curriculum have gained attention as a means to foster both practical skills and personal development. According to Tadalan (2021), students faced significant hurdles during remote learning, especially in accessing quality instruction, yet the shift to modular learning has encouraged self-regulation and independence among learners. However, the effectiveness of these modules remains an area for exploration, particularly regarding their impact on students' performance in cookery, which requires both theoretical knowledge and practical skills.

Objectives of the Study

This study aims to assess the quality, perceived values, and relevance of cookery modules used in the Grade 12 TLE curriculum and their implications for student performance. It seeks to explore how these factors influence students' learning experiences, motivation, and practical skill development, providing insights for improving instructional strategies.

Framework

The study is grounded in Kolb's Experiential Learning Theory (1984), which emphasizes that learning is most effective when students engage in hands-on experiences, followed by reflection and application. This aligns with

the need for a balance between theoretical learning and practical application in cookery. Additionally, Vygotsky's Sociocultural Theory (1978) underscores the role of social interaction and guidance, particularly the importance of mentorship and peer feedback in skill acquisition. These theoretical frameworks guide the study's investigation into how modular learning, which often lacks immediate feedback and peer collaboration, impacts students' ability to develop culinary skills.

Statement of the Problem

This study sought to determine module quality, perceived values, and relevance: implication on Grade 12 learners' cookery performance. This study attempts to answer the following questions:

1. What is the participants' assessment of the quality of modules?
2. What are the participants' self-report on the perceived values and relevance of cookery modules?
3. What is the participants level of performance in TLE on the area of cookery?
4. Are the participants' assessment of the quality of modules and their perceived values and relevance significantly associated with their cookery performance?

METHODS

This study employs a descriptive-correlational method research design which involves the conditions or relationships that exist between variables (Pal, 2001). It involves 70 Grade 12 students from a National High School in Misamis Oriental, enrolled in the TLE strand with a specialization in Cookery. Participants were selected based on the following criteria: Grade 12 students aged 15-16 years old, enrolled in the Cookery specialization, and having both informed assent and written parental consent.

In this study, the questionnaires were the main tool to gather the data in order to obtain accurate information. Data were acquired using a standardized questionnaire with open-ended questions supplemented by an analysis of their cooking performance ratings. It adheres to ethical standards, ensuring voluntary participation, informed consent, and confidentiality. Participants were fully informed about the study's objectives and procedures, and their privacy was protected throughout the research process. Descriptive statistics were used to analyze the participants' assessment on the quality of modules, perceive values and relevance and their cookery performance. Pearson's r was employed to determine the association between students' assessment of the quality of modules and their self-report on the perceived values and relevance of cookery modules towards their performance in cookery.

RESULTS AND DISCUSSION

Findings with Major Summary Tables

Table 1 Frequency, Percentage and Mean Distribution of the Participants' Assessment of the Quality of Modules

Range	Interpretation	Frequency	Percentage
4.51-5.00	Very High	2	2.86
3.51-4.50	High	31	44.29
2.51-3.50	Moderate	34	48.57
1.51-2.50	Low	3	4.29
1.00-1.50	Very Low	0	0.00
	Total	70	100.0
	Overall Mean	3.42	
	Interpretation	Moderate	
	SD	0.56	

Table 1 presents the frequency, percentage, and mean distribution of the participants' assessment of the quality of modules. The overall mean score of 3.42, interpreted as "Moderate," indicates that participants generally perceive the quality of the modules as satisfactory but with room for improvement. This means that while students generally find the modules useful, they also see areas where improvements are needed. The standard deviation of 0.56 tells us that most students had similar opinions about the materials. These findings align with the research of Smith and Jones (2020), which emphasizes that clear learning materials accompanied by hands-on activities significantly enhance students' understanding and retention of lessons. Similarly, Brown (2019) highlights that modules enriched with visual aids and practical examples contribute to a better grasp of cooking skills.

Table 2 Frequency, Percentage and Mean Distribution of the Participants' Self-Report on the Perceived Values and Relevance of Cookery Modules

Range	Interpretation	Frequency	Percentage
4.51-5.00	Very High	7	10.00
3.51-4.50	High	36	51.43
2.51-3.50	Moderate	26	37.14
1.51-2.50	Low	1	1.43
1.00-1.50	Very Low	0	0.00
	Total	70	100.0
	Overall Mean	3.65	
	Interpretation	High	
	SD	0.58	

Table 2 presents the participants' self-report on the perceived values and relevance of cookery modules. The participants' self-reported perception of the values and relevance of the cookery modules is reflected in the overall mean score of 3.65, which is interpreted as "High." This suggests that participants generally perceive the cookery modules as valuable and relevant to their learning experience. The standard deviation (SD) of 0.58 indicates moderate consistency in their responses, with most participants aligning closely in their evaluation. The findings align with research of Ilagan et al. (2019) emphasizing the importance of self-paced, modular learning approaches in fostering independence, critical thinking, and practical skill acquisition. Modular learning materials designed with relevance to practical applications enhance students' engagement and self-efficacy.

Table 3 Frequency, Percentage and Mean Distribution of the Participants Level of Performance in TLE on the Area of Cookery

Range	Interpretation	Frequency	Percentage
95-100	Outstanding	2	2.86
90-94	Very Good	23	32.86
80-89	Average	38	54.29
75-79	Fair	7	10.00
74 & below	Poor	0	0.00
	Total	70	100.0
	Overall Mean	86.40	
	Interpretation	Satisfactory	
	SD	5.35	

Table 3 presents the Frequency, Percentage and Mean Distribution of the participants' performance in TLE in the Area of Cookery. The participants' performance in Technology and Livelihood Education (TLE) concerning cookery were typically assessed as *satisfactory*, achieving an overall mean score of 86.40 and a standard deviation of 5.35. This aligns with the results from Santiago and Gonzales (2023), who highlighted that modular learning could support adequate academic achievement, though mastery and higher skill development usually need more interactive and feedback-enriched settings.

Table 4 Correlation Results (Spearman's Rho) of Participants' Assessment of the Quality of Modules and their Perceived Values and Relevance with their Cookery Performance

		Assessment of the Quality of Modules	Perceived Values and Relevance of the Modules
Cookery Performance	Correlation Coefficient	.001	-.097
	Sig. (2-tailed)	.992	.426

The correlation analysis revealed no significant relationship between students' evaluation of the quality of the modules, their perceived value and relevance, and their performance in cookery. The correlation coefficients were extremely low (*0.001 and -0.097*), and the p-values were well above the *0.05* significance threshold, indicating that the quality of the modules and students' perception of their relevance don't have a direct impact on their cooking skills. This suggests that while students may find the modules helpful, other factors—such as practical experience, the clarity of the material, and the availability of resources—have a more significant effect on their ability to perform in cookery tasks.

Students' responses from the open-ended questions emphasized the need for more hands-on practice, clearer and more structured learning materials, and greater support in overcoming external and personal challenges. Issues like limited access to resources, emotional barriers, and individual differences in adaptability were found to have a greater impact on student performance than the quality of the instructional materials themselves. These responses may greatly support the non-significant result of the correlation, as they highlight how factors outside the modules themselves play a more critical role in shaping cookery performance. These findings suggest that addressing these external factors—by providing more opportunities for practical application, improving access to resources, and implementing motivational strategies—could lead to better outcomes in vocational education and help students develop the necessary skills for success in cookery.

CONCLUSION AND RECOMMENDATIONS

The findings of the study implied that while students were able to understand basic cooking concepts through the modules, they still faced challenges—particularly the lack of hands-on practice and immediate support from teachers. Even though they saw the modules as helpful and relevant, their actual cooking performance showed only moderate progress. The results suggest that other factors, like difficulty understanding the lessons on their own, limited access to resources, and reliance on outside help, had a stronger impact on how well they performed. This shows that learning cookery involves more than just reading materials—it also depends on real-world practice, personal motivation, and proper support to fully develop their skills. Students emphasized the need for better feedback, more practical exercises, and improved resource access to enhance their learning experience, aligning with Kolb's Experiential Learning Theory (1984). This theory stresses the importance of active participation and tangible experiences for mastering practical skills, particularly in technical fields such as cookery.

Challenges identified in the research—such as difficulty understanding theoretical materials, limited resources, and external obstacles—highlight significant gaps in modular instruction. However, students demonstrated resilience by seeking alternative learning methods, showcasing adaptability and a capacity for growth. Improving resource availability, incorporating practical learning opportunities, and addressing students' motivational needs could create a more effective and holistic approach to vocational education, as supported by Kolb (1984) and Carter (2022). These strategies are essential for bridging the gap between theoretical knowledge and skill

proficiency in cooking education. student learning results and overall academic achievement.

Recommendations

Based on the research findings regarding cookery modules and student performance, the following recommendations are proposed:

1. For **TLE Teachers** that they:

- 1.1 enhance module clarity by simplifying step-by-step cooking procedures and incorporating more visual guides, as students rated following procedures as the most challenging aspect.
- 1.2 incorporate more hands-on practice opportunities within modules to bridge the gap between theoretical knowledge and practical application.
- 1.3 Strengthen the feedback mechanisms to help students understand their progress and address misconceptions.

2. For **TLE Supervisors** that they:

- 2.1 review and revise the current modular curriculum design to better integrate theoretical concepts with practical application.
- 2.2 refine the standards for incorporating hands-on components within the modular learning framework.
- 2.3 facilitate sharing of best practices among TLE teachers regarding effective module design.

3. For **School Administrators** that they:

- 3.1 establish resource-sharing systems to help students access cooking tools and ingredients they lack at home.
- 3.2 consider increasing the budget for developing improved cookery modules with enhanced visual elements and clearer instructions.
- 3.3 Intensify the opportunities for periodic hands-on practice sessions to supplement modular learning.

4. For **Future Researchers** that they:

- 4.1 investigate the effectiveness of blended learning approaches that combine modular instruction with periodic face-to-face practical sessions.
- 4.2 explore factors that most significantly impact student motivation in self-regulated learning environments.
- 4.3 examine the role of technology in enhancing practical skill development for cookery education.
- 4.4 analyze the influence of home environment and support systems on cookery performance.

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